

TECH DATA SUPREME™ MULTIGRADE MOTOR OILS

INTRODUCTION

SUPREMETM Motor Oils are premium advanced motor oils designed to lubricate the engines of today's gasoline and ethanol (up to E85) fuelled passenger cars, vans, CUVs, SUVs and light duty trucks. With today's high-powered engines, SUPREME Motor Oils can help provide long engine life by lubricating critical parts effectively. They also provide enhanced protection for the latest emission control systems and turbochargers.

SUPREME Motor Oils start with the HT purity process which produces 99.9% pure PURITY™ base oils. In combination with leading-edge additive technology, they deliver exceptional resistance to thermal breakdown, outstanding low temperature fluidity, and excellent engine protection against wear and deposit formation under the most severe driving conditions.

SUPREME Motor Oils are specially formulated to exceed the latest API Service Classification for gasoline engines, API SP. SAE grades 5W-20, 5W-30, and 10W-30 also meet the latest ILSAC GF-6A specification. Our oils feature new and advanced formulations to protect gasoline direct injected and turbocharged direct injected engines from accelerated timing-chain wear and harmful damage caused by abnormal combustion events that can sound like engine "knocking". In addition, SUPREME Motor Oils contain a blend of our high quality API Group II base oils and our higher quality Group III synthetic base oils, offering improved low temperature performance and reduced engine volatility due to this synthetic blend engine oil.

FEATURES AND BENEFITS

Extended Engine Life

- Outstanding protection against wear, rust and corrosion
- Excellent valvetrain and timing-chain wear protection
- · Bearing life greatly extended
- Minimizes corrosion due to stop-start driving in cold weather
- Protects against low speed pre-ignition (LSPI)

Exceptional Resistance to High Temperature Thermal Breakdown

- · Cleaner running engines
- Reduces formation of varnish, sludge and carbon deposits on engine parts
- Protects turbochargers from deposit formation
- Minimizes piston-ring sticking
- Maintains effective lubrication due to oil passages staying clean

Outstanding Low Temperature Fluidity

- Permits easier unaided cold weather starts
- Reduces wear during low temperature start-up and operation

Reduced Oil Consumption

- Low evaporation loss results in less oil top-up
- · Verified seal compatibility to prevent leaks

Compatible with High Ethanol Fuels (up to E85)

- · Protects against engine corrosion
- Prevents water separation

Protection of Exhaust Emission Control Systems

• Formulated to meet reduced phosphorus and sulphur levels, and to provide reduced phosphorus volatility in order to protect and extend the life of emission control systems

Petro-Canada Lubricants starts with the HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



IMPROVED FUEL ECONOMY PERFORMANCE

SUPREME Motor Oils meet or exceed the ILSAC GF-6A requirements for fuel economy improvement and fuel economy retention, which surpass the previous generation of ILSAC GF-5 motor oils. They not only provide better initial fuel economy, but they are better at maintaining it over the oil drain interval.

APPLICATIONS

SUPREME Motor Oils are recommended for year-round use in gasoline, gasoline containing ethanol (up to E85), propane and compressed natural gas (CNG) fuelled engines. SUPREME Motor Oils meet or exceed new car warranty requirements for North American and Asian vehicles where ILSAC GF-6A or API SP engine oils are recommended. They are fully back-serviceable to previous ILSAC and API performance ratings including ILSAC GF-5 and API SN, SN PLUS.

PETRO-CANADA SUPREME™ MOTOR OILS RECOMMENDED APPLICATIONS

RECOMMENDED APPLI	■Approved or Lic	Suitable for Use			
SAE Viscosity Grade	5W-20	5W-30	10W-30	10W-40	20W-50
API					
SP		-	•		
SP Resource Conserving	•	•	•		
SN, SN PLUS*					
ILSAC					
GF-6A	•	•	•		
GF-5*					
Chrysler					
MS-6395	•	•	•		
Ford					
WSS-M2C960-A1					
WSS-M2C961-A1					
Asian OEMs					

^{*} back-serviceable

Honda, Hyundai, Kia, Mazda, Toyota

Always consult the owner's manual to select the appropriate viscosity grade and approval level for your engine.

TYPICAL PERFORMANCE DATA

Property	ASTM Test Method	PETRO-CANADA SUPREME					
		5W-20	5W-30	10W-30	10W-40	20W-50	
Density, kg/L @ 15°C/59°F	D4052	0.851	0.854	0.862	0.861	0.870	
Colour	D1500	<3.0	<3.0	2.5	2.5	2.5	
Flash Point, COC, °C/°F	D92	222 / 431	236 / 457	225 / 437	235 / 455	253 / 487	
Pour Point, °C/°F	D5950	-45 / -49	-45 / -49	-42 / -44	-36 / -33	-30 / -22	
Kinematic Viscosity cSt @ 40°C cSt @ 100°C	D445	48.2 8.6	68.9 11.3	69.7 10.7	102 14.9	164 19.1	
Viscosity Index	D2270	156	158	143	153	133	
Cold Cranking Viscosity - cP @ °C/°F	D5293	4300 @ -30 / -22	6100 @ -30 / -22	5000 @ -25 / -13	5800 @ -25 / -13	6700 @ -15 / +5	
Borderline Pumping Viscosity, cP @ °C/°F	D4684	12000 @ -35 / -31	23000 @ -35 / -31	16000 @ -30 / -22	24000 @ -30 / -22	20300 @ -20 / -4	
Volatility (Noack), % loss	D5800	12.3	11.1	10.0	9.5	3.9	
Sulphated Ash, % wt	D874	0.92	0.81	0.84	0.81	0.79	
Sulphur, % wt	D4294	0.28	0.28	0.28	0.28	0.28	
Phosphorous, % wt	D4951	0.08	0.08	0.08	0.08	0.08	
Base Number (BN), mg KOH/g	D2896	7	7	7	7	7	
High-Temperature High-Shear (HTHS) Viscosity, cP @ 150°C	D4683	2.6	3.1	3.0	3.9	4.6	

The values quoted above are typical of normal production. They do not constitute a specification.

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Committed to the disciplined operation of our business.



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